

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

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Claims 1-3 (canceled).

4. (currently amended) A capillary array electrophoresis plate, comprising:  
an array of separation channels, each separation channel connected with [having]  
a cathode reservoir at one end and a[n] common anode reservoir at an opposite end; and  
an array of injection channels, each injection channel having a first leg and a  
second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other  
end to one of the separation channels, and the second leg connected at one end to one of the  
separation channels and at the other end to a waste reservoir.

5. (currently amended) The capillary array electrophoresis plate of claim 4,  
wherein at least one of the cathode reservoirs is connected with more than one of the separation  
channels [are multiplexed].

Claim 6 (canceled).

7. (currently amended) The capillary array electrophoresis plate of claim 4,  
wherein at least one of the waste reservoirs is connected with more than one of the separation  
channels [are multiplexed].

Claim 8 (canceled).

9. (currently amended) A method of sequentially loading a plurality of  
different samples onto an electrophoretic separation channel, comprising:  
providing a capillary array electrophoresis plate, comprising[:]  
an array of separation channels, each separation channel connected with  
[having] a cathode reservoir at one end and a[n] common anode reservoir at an opposite end,[:]  
and

an array of injection channels, each injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to one of the separation channels, the second legs connected at one end to one of the separation channels and at the other end to a waste reservoir;

moving a plurality of first samples from the plurality of first sample reservoirs through the plurality of first legs of the injection channels and into the plurality of separation channels; and subsequently,

C | electrophoretically separating the plurality of first samples in the plurality of separation channels between the cathode reservoirs and the common anode reservoir]; and subsequently,

moving a plurality of second samples from the plurality of second sample reservoirs through the plurality of first legs of the injection channels and into the plurality of separation channels; and subsequently,

electrophoretically separating the plurality of second samples in the separation channel].

10. (currently amended) A capillary array electrophoresis plate, comprising:  
an array of separation channels each having a cathode reservoir at one end and a[n] common anode reservoir at an opposite end; and

an array of injection channels each having a first leg and a second leg, wherein,  
the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels, and a first plurality of sample reservoirs are connected to the first leg along the length of the first leg.[:] and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels, and a second plurality of sample reservoirs are connected to the second leg along the length of the second leg.

11. (currently amended) A method of sequentially loading [four] more than one different samples onto an electrophoretic separation channel, comprising:

providing a capillary array electrophoresis plate, comprising[:]

an array of separation channels each having a cathode reservoir at one end and a[n] common anode reservoir at an opposite end,[] and

an array of injection channels each having a first leg and a second leg,  
wherein,

the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the first leg along the length of the first leg; and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the second leg along the length of the second leg;

moving a first sample from a first sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,  
electrophoretically separating the first sample in the separation channel.

12. (previously amended) The method of claim 11, further comprising:  
moving a second sample from a second sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,  
electrophoretically separating the second sample in the separation channel.

13. (previously amended) The method of claim 12, further comprising:  
moving a third sample from a third sample reservoir through second leg of the injection channel and into the separation channel; and subsequently,  
electrophoretically separating the third sample in the separation channel.

14. (previously amended) The method of claim 13, further comprising:  
moving a fourth sample from a fourth sample reservoir through second leg of the injection channel and into the separation channel; and subsequently,  
electrophoretically separating the fourth sample in the separation channel.

15. (new) The capillary array electrophoresis plate of claim 9, wherein at least one of the cathode reservoirs is connected with more than one of the separation channels and wherein electrophoretically separating comprises electrophoretically separating the plurality of first samples in the plurality of separation channels between the at least one of the cathode reservoirs and the common anode reservoir.

16. (new) The capillary array electrophoresis plate of claim 9, wherein at least one of the waste reservoirs is connected with more than one of the separation channels and wherein the moving step is performed by applying a potential between the plurality of first sample reservoirs and the at least one of the waste reservoirs.

17. (new) The capillary array electrophoresis plate of claim 9, further comprising moving a plurality of second samples from the plurality of second sample reservoirs through the plurality of first legs of the injection channels and into the plurality of separation channels; and subsequently,

electrophoretically separating the plurality of second samples in the plurality of separation channels between the cathode reservoirs and the common anode reservoir.

18. (new) A capillary array electrophoresis plate, comprising:  
an array of separation channels, each separation channel is connected with a cathode reservoir at one end and an anode reservoir at an opposite end, wherein at least one of the cathode reservoirs is connected with more than one separation channel; and

an array of injection channels, each injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to one of the separation channels, and the second leg connected at one end to one of the separation channels and at the other end to a waste reservoir.

19. (new) The capillary array electrophoresis plate of claim 18, wherein at least one of the anode reservoirs is connected with more than one of the separation channels.

20. (new) The capillary array electrophoresis plate of claim 18, wherein at least one of the waste reservoirs is connected with more than one of the separation channels.

21. (new) A capillary array electrophoresis plate, comprising:  
an array of separation channels, each separation channel connected with a cathode reservoir at one end and an anode reservoir at an opposite end; and  
an array of injection channels, each injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to one of the separation channels, and the second leg connected at one end to one of the separation channels and at the other end to a waste reservoir, and wherein the waste reservoir is connected with another second leg of another injection channel which is connected with another of the separation channels.

22. (new) The capillary array electrophoresis plate of claim 20, wherein at least one of the anode reservoirs is connected with more than one of the separation channels.

23. (new) The capillary array electrophoresis plate of claim 20, wherein at least one of the cathode reservoirs is connected with more than one of the separation channels.

24. (new) A method of sequentially loading a plurality of different samples onto an electrophoretic separation channel, comprising:

providing a capillary array electrophoresis plate, comprising  
an array of separation channels, each separation channel connected with a cathode reservoir at one end and an anode reservoir at an opposite end, wherein at least one of the cathode reservoirs is connected with more than one separation channel, and  
an array of injection channels, each injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to one of the separation channels, the second legs connected at one end to one of the separation channels and at the other end to a waste reservoir;

moving a plurality of first samples from the plurality of first sample reservoirs through the plurality of first legs of the injection channels and into the plurality of separation channels; and subsequently,

electrophoretically separating the plurality of first samples in the plurality of separation channels between the cathode reservoirs and the anode reservoirs.

25. (new) A method of sequentially loading a plurality of different samples onto an electrophoretic separation channel, comprising:

providing a capillary array electrophoresis plate, comprising

an array of separation channels, each separation channel connected with a cathode reservoir at one end and an anode reservoir at an opposite end, and

an array of injection channels, each injection channel having a first leg and a second leg, the first leg connected at one end to a plurality of sample reservoirs and at the other end to one of the separation channels, and the second leg connected at one end to one of the separation channels and at the other end to a waste reservoir, and wherein the waste reservoir is connected with another second leg of another injection channel which is connected with another of the separation channels;

moving a plurality of first samples from the plurality of first sample reservoirs through the plurality of first legs of the injection channels and into the plurality of separation channels; and subsequently,

electrophoretically separating the plurality of first samples in the plurality of separation channels between the cathode reservoirs and the anode reservoirs.

26. (new) A capillary array electrophoresis plate, comprising:

an array of separation channels each having a cathode reservoir at one end and an anode reservoir at an opposite end, wherein at least one of the cathode reservoirs is connected with more than one separation channel; and

an array of injection channels each having a first leg and a second leg, wherein,

the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels, and a first plurality of sample reservoirs are connected to the first leg along the length of the first leg, and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels, and a second plurality of sample reservoirs are connected to the second leg along the length of the second leg.

27. (new) A method of sequentially loading more than one different samples onto an electrophoretic separation channel, comprising:

providing a capillary array electrophoresis plate, comprising

an array of separation channels each having a cathode reservoir at one end and an anode reservoir at an opposite end, wherein at least one of the cathode reservoirs is connected with more than one separation channel, and

an array of injection channels each having a first leg and a second leg,  
wherein,

the first leg is connected at one end to a first waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the first leg along the length of the first leg; and

the second leg is connected at one end to a second waste reservoir and at the other end to one of the separation channels and a plurality of sample reservoirs are connected to the second leg along the length of the second leg;

moving a first sample from a first sample reservoir through first leg of the injection channel and into the separation channel; and subsequently,

electrophoretically separating the first sample in the separation channel.

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